Reflection and Self-Assessment

Part 1: Circle the statement that best describes how you completed the practice:

- I answered all questions without using the online solutions. I checked my answers against the key at the back of the practice and was able to determine my mistakes and correct them without referring to the online solutions.
- I answered most questions correctly without using the online solutions. I used the online solutions to help me with some questions and was able, with help from the online solutions, to understand every question and answer them correctly.
- I used the online solutions to help me with most of the questions. I was able, with help from the online solutions, to understand each question and answer them correctly.
- Even using the online solutions, I was not able to fully understand the solution to some problems. The questions I had trouble with were:
- I did not attempt all the questions on the practice.

Part 2: Circle the statement that best describes your confidence in answering questions of this type in the future.

- I am confident I can answer nearly any question of this type correctly without using notes or other assistance.
- I am confident I can answer **MOST** questions of this type correctly without using notes or other assistance.
- I am **NOT** confident I can answer most questions of this type correctly without using notes or other assistance.

Part 3: Circle the statement below that best describes the total amount of time you spent actively working on this practice:

Less than an hour	Between one and	Between two and	Between three	More than four
	two hours	three hours	and four hours	hours

1. A battery with EMF of 4.5 volts has an internal resistance of 0.450 Ω . What is the terminal voltage when 0.26 A of current flows through the battery?

2. A battery with EMF of 2.9 volts has terminal voltage of 2.6 volts when 0.85 A of current flows through the battery. What is the internal resistance of the battery?

3. A battery has internal resistance of 1.3 Ω terminal voltage of 6.8 volts when 1.2 A flows through circuit. What is the EMF?

- 4. A load with resistance of 13.2 Ω , is connected to a battery with EMF of 12.0 V and internal resistance of 0.963 Ω .
 - a. What is the total resistance of the circuit?
 - b. What is the total current of the circuit?

c. What is the terminal voltage of the battery?

- d. How much power does the load draw?
- 5. A load with resistance of 22.5 Ω , is connected to a battery with terminal voltage of 4.5 V and EMF of 4.7 V.
 - a. What is the current of the circuit?
 - b. What is the internal resistance of the battery?

6. An electrical device has resistance of 24 Ω and requires a current of 85 mA to operate. It is connected to a battery with EMF of 3.0 volts. What is the maximum internal resistance the battery can have before the device stops working?

7. An electrical light draws 85 watts of power from a battery while current of 2.1 A. The internal resistance of the battery is 2.3 Ω . What is the EMF of the battery?

8. A battery with internal resistance of 0.75 Ω is connected to a 45 Ω load and the terminal voltage is 7.5 V. What will the terminal voltage be if it is connected instead to a 15 Ω load?

EMF Practice

Name:_____

Answer Key							
1) 4.4 V	2) 0.35 Ω	3) 8.4 V	4a) 14.2 Ω	4b) 0.849 A			
4c) 11.2 V	4d) 9.49 watts	5a) 0.20 A	5b) 1.0 Ω	6) 11 Ω			
7) 45 V	8) 7.3 V						